PLUG COMPATIBLE PRODUCTS

INPUT

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MARKET AWARENESS BY USERS OF PLUG COMPATIBLE PRODUCTS

PREPARED FOR:

ITEL CORPORATION

JULY 18, 1978

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I INTRODUCTION

I INTRODUCTION

- The objective of this study was to determine the perception of Itel as a supplier of computer products among 370/148, 158 and 168 users. Emphasis was placed on:

  - The effectiveness of Itel sales penetration.

  - Image presented by Itel's sales staff.

  - User awareness of Itel's product line.

  - Sources used for EDP product information.

- The interview sample consisted of 150 370/XXX users, as shown in Exhibit I-1. Separate interviews were conducted for EDP Executives (the EDP Manager or an equivalent title) and for User Executives (generally the Vice President of Administration, Finance or an Executive Vice President) who had corporate responsibility for the EDP department.

- The number of interviews conducted within each 370/XXX group was based on the number of mainframes installed. For example, 55% of all 370 installations are 158s, therefore 56% of the interviews were conducted in this group.

EXHIBIT I-1

INTERVIEW SAMPLE

IBM 370 INSTALLATION	EDP EXECUTIVE	USER EXECUTIVE	TOTAL
148	21	11	32
158	46	38	84
168	23	11	34
TOTAL NUMBER OF INTERVIEWS CONDUCTED	90	60	150

- Throughout this study, INPUT has used the abbreviations of PCM and PCP to indicate plug compatible mainframes and plug compatible peripheral products.

- Research for this report was based on telephone interviews conducted in May and June of 1978.

- The names of the companies interviewed are listed in Appendix A.

- The questionnaires used to conduct this research are presented in Appendix B.

II EXECUTIVE SUMMARY

II EXECUTIVE SUMMARY

A. CONCLUSIONS

- Respondents reported the importance of EDP as it relates to revenue and profit as being high, receiving a 1.8 on a scale of 5 (1 being high, 5 being low).

  - 370/158 users felt EDP to be somewhat more important than the 148 and 168 sites interviewed.

  - The advantage EDP systems provided their companies primarily related to marketing (e.g., pricing strategies, timeliness of management information, market share analysis, etc.).

- The 370/158 installations forecasted the largest growth in mainframe installations, a 36% increase from 1978 to 1980. This compares with a growth rate of 24% for 168 installations and 14% for 148 installations.

- The number of 30XX models on order was high in all groups interviewed:

370 Installation	% Having a 30XX On Order
148	52%
158	84%
168	83%

- For each of the models under study, respondents believed that their company's requirements (23%) for installation growth in 1979 versus 1978 would exceed the national average (17%) as well as their industry average (17%).

  - Distributed data processing and/or minicomputers were cited as the greatest deterrent to continued aggressive growth, with a greater impact in the 148 marketplace.

- Seventy to eighty percent of the systems installed by those interviewed were rented or leased.

- With the exception of add-on memory, where Itel took the lead, IBM still dominated the peripheral market analyzed (3330, 3350 disk and non-impact printers).

- As a CPU maintenance vendor, IBM received a good rating of 1.7 (on a scale of 5). For add-on memory, Itel shared the top rating with IBM. Maintenance of Itel 3330 type disk drives (2.4 points) generally received uncomplimentary remarks.

  - These remarks were attributed more to the unreliability and poor engineering of the product than to the support staff.

- Respondents report a greater possibility for considering the installation of plug compatible mainframes among 158 (62%) and 168 (77%) users than with those having a 148 (32%) installed. User executives interviewed generally displayed more flexibility than their EDP counterparts concerning their receptivity towards plug compatible mainframes.

- The possibility of installing plug compatible peripherals received a much higher rate of acceptance by respondents, which ranged from a low of 71% (158 EDP Executives) to 100% (148 EDP and 168 User Executives). Itel received a substantially lower score for being considered as a plug compatible product vendor than the general findings reported:

  - About 85% of the respondents reported they would consider installing a plug compatible peripheral; however, only half would consider installing an Itel disk drive.

- The awareness of User Executives of plug compatible mainframe products was surprisingly higher than the level of awareness reported by EDP Executives. (See Exhibit II-1).

  - The 168 sites appeared to be the most knowledgeable concerning plug compatible products.

  - Respondents were more aware of Amdahl's products than those offered by Itel.

  - There was some confusion with respondents on whether the PCM vendors' name was Itel or Intel.

- When evaluating a PCM vendor, the factors considered most important were (on a scale of 5):

  - Product reliability (1.3).

  - Maintenance capability (1.3).

  - Software support (1.6).

  Of least importance to respondents were:

EXHIBIT II-1

RESPONDENTS' AWARENESS OF PLUG COMPATIBLE

MAINFRAME PRODUCTS

IBM 370 INSTALLATION	NUMBER OF RESPONDENTS WHO KNEW OF A RCM VENDOR		PCM VENDOR CITED	% WHO WERE AWARE (TOTAL)
	KNEW	DID NOT KNOW		
148				
- USER	8	3	AMDAHL ITEL MAGNESON	73% 36 9
- EDP	13	8	ITEL AMDAHL CDC	48 43 19
158				
- USER	30	8	AMDAHL ITEL CDC MAGNESON	71% 47 21 11
- EDP	29	17	AMDAHL ITEL CDC MAGNESON	54 43 7 4
168				
- USER	10	1	AMDAHL ITEL CDC MAGNESON	91% 73 36 9
- EDP	22	1	AMDAHL ITEL CDC MAGNESON	91 48 32 4
TOTAL LEVEL OF AWARENESS				
- USER	48	12	AMDAHL ITEL CDC MAGNESON	75% 50 20 10
- EDP	64	26	AMDAHL ITEL CDC MAGNESON	61 46 16 6

- Single vendor for all purchases (3.1).

- Financial arrangements (3.1).

- Many of those interviewed still comment: "We always buy IBM." Most of the reasoning for this involved IBM's unquestionable viability and commitment to the business and their excellent maintenance capability.

- Most companies interviewed admitted not solicitating competitive bids or performing financial in-house studies.

- An EDP executive was usually involved in the final decision-making process for mainframe selection. Surprisingly, 158 users reported EDP management participation in only 41% of cases versus about 50% for 148 and 168 users.

- News articles and industry reports were the most relied upon sources of PCM product information (about 50%) according to those interviewed (see Exhibit II-2).

- About 75-85% of respondents reported that a 10-30% price reduction would be required to buy IBM plug compatible products.

- Only one-third of respondents reported not caring if the mainframe product is imported rather than manufactured in the U.S.

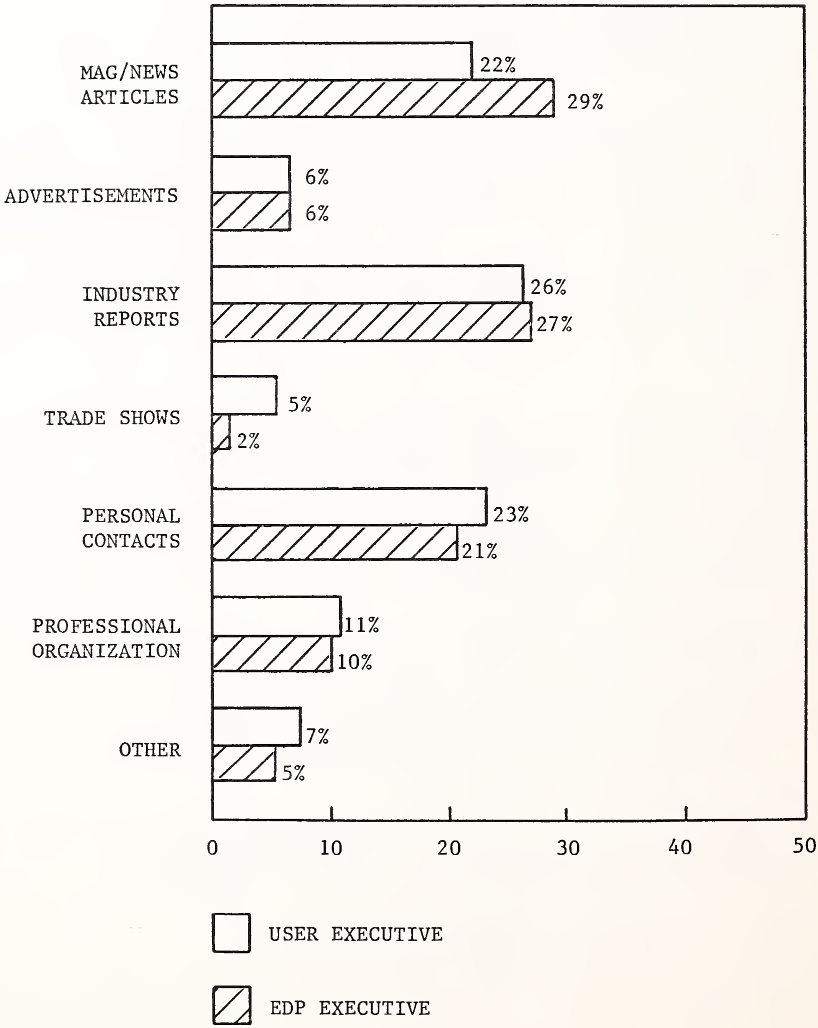
- About two-thirds of the respondents had a plug compatible mainframe salesman call on them. Of the 148 and 158 users, about half reported Itel was one of the vendors calling versus 27% for the 168 users in which case Amdahl was the dominant vendor (see Exhibit II-3).

- Respondents were generally unimpressed with the professionalism and sales knowledge of the Itel salesperson. Typical comments were:

  - Not as well trained as his IBM counterpart.

EXHIBIT II-2

SOURCES OF INFORMATION USED
TO EVALUATE PCM VENDORS



IN

EXHIBIT II-3

PCM SALES CALLS ON 370/XXX

USER AND EDP EXECUTIVES

IBM INSTAL-LATION	NUMBER OF RESPONSES	PERCENT CON-TACTED	PCM VENDOR NAME				
			ITEL	AMDAHL	MAGNESON	CDC	OTHER
148							
- USER	11	64%	45%	22%	0%	11%	22%
- EDP	21	43	50	8	0	34	8
158							
- USER	38	79%	48%	40%	2%	6%	4%
- EDP	46	67	44	44	2	5	5
168							
- USER	11	55%	22%	67%	0%	11%	0%
- EDP	23	74	32	46	7	11	4
TOTAL OF ALL RESPONSES	150	67%	44%	38%	2%	12%	4%

OTHER = PCM VENDOR CONTACT MADE BUT RESPONDENT COULD NOT REMEMBER NAME OR RESPONDENT CITED A NON-PCM VENDOR.

- Too much IBM "bad mouthing."

- Itel received the highest ratings for financial arrangements and lowest as a single vendor source (see Exhibit II-4).

  - Many of the respondents had an image of Itel as being a leasing company as opposed to a viable computer manufacturer.

- Itel's advertising recognition was high (87%) among respondents, particularly in EDP magazines (e.g., Computerworld and Datamation). Slightly lower ratings were reported for Business Week and The Wall Street Journal.

- Respondents report little difference in the reading habits of the User or EDP Executive as it relates to EDP magazines and not surprisingly the three periodicals or newspapers considered best for advertising product information were:

  - Computerworld (38% received a rating of 1 or 2).

  - Datamation (36% received a rating of 1 or 2).

  - Wall Street Journal (29% received a rating of 1 or 2).

B. RECOMMENDATIONS

1. MARKET CONCENTRATION

- Direct major marketing effort toward the 158s for the short-term rather than the 148 or 168 user:

  - The 158 users represent 55% of the total units of all three models.

EXHIBIT II-4

ITEL RATINGS BY

USER AND EDP EXECUTIVES INTERVIEWED

FACTOR	148		158		168		WEIGHTED AVERAGE OF ALL RATINGS
	USER	EDP	USER	EDP	USER	EDP	
FINANCIAL ARRANGEMENTS	2.1	2.5	2.0	2.0	2.6	2.3	2.2
PCM PRODUCTS	2.4	2.3	2.5	2.4	3.2	2.8	2.5
SALES KNOWLEDGE/ PROFESSIONALISM	2.4	2.1	2.6	2.4	3.3	2.7	2.5
COMPANY IMAGE	2.2	2.3	3.3	2.2	3.0	3.0	2.8
FIELD UPGRADABILITY	3.0	2.2	2.5	2.4	3.5	3.5	2.7
PERIPHERAL PRODUCTS	2.3	2.3	2.9	2.8	3.8	3.5	2.8
MAINTENANCE CAPABILITY	3.4	2.7	2.9	2.5	3.3	3.2	2.9
SINGLE VENDOR SOURCE	3.9	3.3	4.0	3.6	3.8	3.5	3.7

SCALE: 1 = HIGH, 5 = LOW

- The 148 market will be impacted more quickly from the upward expansion of minicomputer products and the introduction of additional mid-sized product competitors.

- Amdahl has been aggressively marketing the 168 users.

- Consider expanding marketing activities to larger systems (168+) over the next few years.

2. IMAGE ENHANCEMENT

- Itel's perception by the user communities should be modified by the following activities:

  - Establish advertising activities that create an image of a technology company that also undertands financing for the user community.

  - Emphasize more association with Itel Data Services, especially that portion associated with remote computing.

  - Publish major product oriented articles in Datamation and Computerworld, which emphasize technical capabilities and product reliability, compatibility of equipment, and maintenance support.

  - Consider establishment of Itel "User Groups" with periodic regional meetings for presentation of product capabilities and enhancements.

  - Augment hardware product offerings with software, particularly data base management systems.

    - INPUT Impact Report #8, "Data Base Management System Software Market," May 1978, has forecast a ten-fold increase in DBMS from 1977 to 1983 from $86 million to $890 million.

This could be accomplished through the renegotiation of a marketing agreement with some of the smaller independent software product companies with well-accepted data base management software; e.g., Cullinane, CINCOM, MRI, etc.

3. SALES FORCE UPGRADE

- Examine quality and structure of current field sales force to emphasize technical understanding of various product offerings.

  - Consider establishment of national account managers for major marketing activities; e.g., 168 users.

  - Review current sales training programs to ensure personnel are well-informed on own product lines, comparable product lines, and interfacing of specialized peripheral equipment.

  - Emphasize customer qualifications in sales force to ensure sales calls reflect an understanding of customer's problems in his industry.

  - Review and upgrade sales literature used for direct mailing and field sales force.

4. MAINTENANCE IMPROVEMENTS

- Review quality and organization of current maintenance activities.

  - Conduct case studies of both successful and unsuccessful maintenance activities to establish key components of a well-run maintenance program.

  - Review and update quality of maintenance personnel with consideration for incentive compensation for well-maintained installations.

- Review and upgrade quality of current maintenance procedures and documentation.

- Publish maintenance figures and ensure that they are included in source selection literature; e.g., Datapro.

- Establish a facilities back-up for large mainframe users.

- Consider the establishment of a capability to conduct product diagnostic checks via telecommunications.

III USER ANALYSIS

III USER ANALYSIS

A. IMPORTANCE OF EDP IN USER ORGANIZATIONS

- The importance to User Executives of EDP in relation to revenue and profit in their organizations received a weighted average rating of 1.8 (on a scale of 5, with 1 high and 5 low).

- Exhibit III-1 shows the responses received from the installations interviewed.

  - The only group to rate revenue and growth consistently were the 158 users.

  - Both the 148 and 168 installations rated revenue as being more important than profit for their EDP organizations.

- When asked what competitive advantages EDP provides their company, the majority responded by citing an advantage in marketing. Some typical responses were:

  - "Timely response to customer orders; flexibility in pricing."

  - "Without EDP we wouldn't stay in business very long."

EXHIBIT III-1

USER EXECUTIVE EVALUATION OF THE IMPORTANCE OF EDP AS IT RELATES TO REVENUE AND PROFIT

IBM 370 INSTALLATION	REVENUE	PROFIT	NUMBER OF RESPONDENTS
148	1.9	2.2	11
158	1.8	1.8	33
168	2.0	2.2	10
WEIGHTED AVERAGE	1.8	1.9	54

SCALE: 1 = HIGH, 5 = LOW

- "Tactical information for marketing - better than half of our business is marketing."

- "Ability to react to competitive moves."

- "Keeping the prices down. Being able to study the effect of marketing a product and price it accordingly."

- "EDP shortens our time to produce a product. This is a 100% improvement from 10 years ago."

- "Marketing data - analysis of market share, trends and effects of sales promotions.

- Other comments revolved around the management of information and ability to provide it when needed.

- The banking institutions rated the importance of EDP the highest of all industry groups interviewed.

- The most important requirements cited by the User Executives from their EDP operations were:

  - Timeliness.

  - Accuracy.

  - Reliability.

  - User Satisfaction.

B. MAINFRAMES INSTALLED AT USER SITES AND PROJECTED INCREASES

- Exhibit III-2 shows the average number of mainframes installed at the companies interviewed and the number which will be installed in 1980.

  - The 148 installations anticipate a 14% increase in number of mainframes installed by 1980.

  - The 158 and 168 groups reported the highest increase in mainframe growth with increases of 36% and 24%.

  - The weighted average of the 90 companies reporting shows an overall increase of 34% in mainframe installations by 1980.

- The number of IBM 30XX systems on order was surprisingly high, especially for the 148 installations.

  - Eleven out of the 21 (52%) EDP Executives interviewed stated they had a 30XX on order. (See Exhibit III-3.)

- The 158 and 168 installations were almost even in their response to ordering a 30XX, with 84% and 83% reporting affirmatively.

- The average number of 30XX's on order of the sites interviewed were:

370 Installation	Average # On Order	Range
148	1.2	1-3
158	1.4	1-5
168	2.1	1-6

EXHIBIT III-2

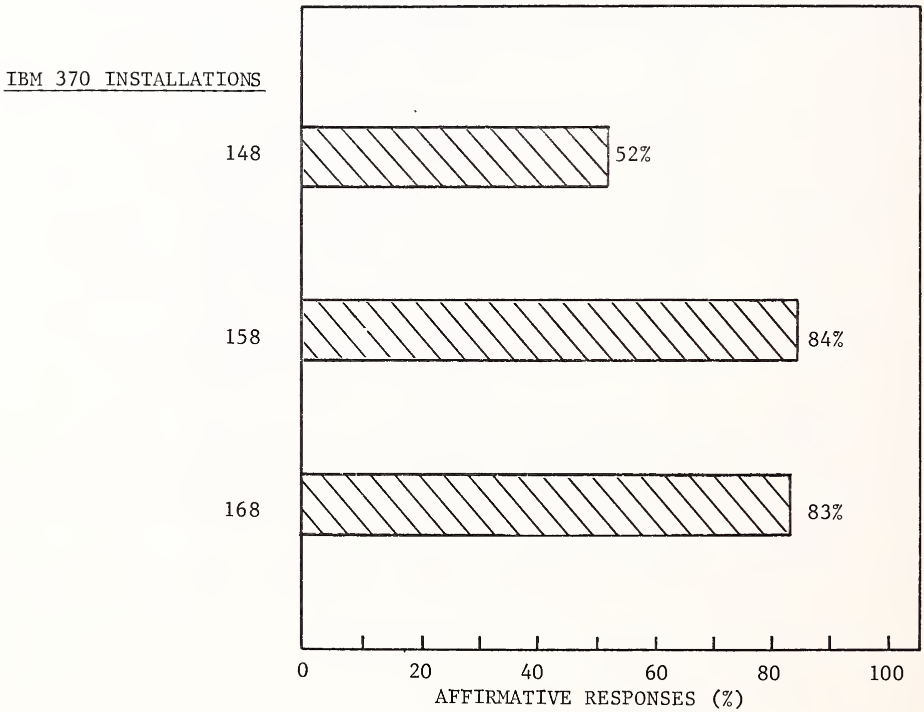
NUMBER OF COMPUTERS CURRENTLY INSTALLED AND PROJECTED INSTALLATIONS IN 1980 AS REPORTED BY RESPONDENTS

IBM 370 INSTALLATION	CURRENT INSTALLATIONS		1980 INSTALLATIONS		% INCREASE 1978 TO 1980
	AVERAGE NUMBER	RANGE	AVERAGE NUMBER	RANGE	
148	1.1	1-2	1.25	1-2	14%
158	1.67	1-10	2.27	1-15	36
168	2.5	1-6	3.1	1-9	24
WEIGHTED AVERAGE	1.8	1-10	2.2	1-15	34%

EXHIBIT III-3

RESPONDENT COMPANIES REPORTING HAVING

A 30XX ON ORDER



- It should be noted that many companies have more on order than they actually intend to acquire in order to ensure they will obtain optimum delivery dates.

C. PROJECTED INCREASES IN MAINFRAME SYSTEMS

- Exhibit III-4 shows the projected increases in the growth of large mainframe installations reported by EDP and User Executives.

- In almost every instance the growth rate for mainframe installations within their company was higher than the growth rates projected nationally or for their industry.

- When asked what they foresaw as deterrents to the continued growth of large mainframe systems, the majority of respondents stated the impact of distributed processing and/or minicomputers. However, many respondents (particularly the large 158 and 168 sites) felt these factors would not have a serious impact on the overall operation of large data centers.

- The majority of the companies interviewed did not foresee any major threat to the growth of mainframes and projected increases within their companies ranging from 20-28% over the next year.

D. MAINFRAME FINANCIAL ARRANGEMENTS

- The financial arrangements for CPUs of the companies interviewed were:

EXHIBIT III-4

ANTICIPATED GROWTH LEVELS FOR

LARGE MAINFRAME SYSTEMS: 1979 VERSUS 1978

IBM 370 INSTALLATION	NATIONALLY	THEIR INDUSTRY	THEIR COMPANY
148			
- USER EXECUTIVES	11%	12%	24%
- EDP EXECUTIVES	24	17	21
158			
- USER EXECUTIVES	19	20	23
- EDP EXECUTIVES	19	18	23
168			
- USER EXECUTIVES	12	10	20
- EDP EXECUTIVES	15	20	28
WEIGHTED AVERAGE			
- USER EXECUTIVES	14%	16%	23%
- EDP EXECUTIVES	20%	18%	23%

- 148	19%	Purchased
	81%	Leased
- 158	31%	Purchased
	5%	Rented
	64%	Leased
- 168	31%	Purchased
	2%	Rented
	67%	Leased

- The only significant difference in these figures are the larger number of system purchases in the 158 and 168 group and that very few companies rent their mainframes.

E. PERIPHERAL EQUIPMENT INSTALLED AT 370/XXX SITES

- Exhibits III-5 through III-7 shows the add-on memory, 3330 and 3350 type disks, and non-impact printers installed at the 370/148, 158 and 168 companies interviewed.

- Add-on Memory:

  - The percentages on Exhibits III-6 through III-8 of each vendor's share of add-on memory are calculated as a percent of the number of megabytes installed as opposed to the number of units.

EXHIBIT III-5

PERIPHERALS

INSTALLED AT 370/148 SITES

PERIPHERAL TYPE	AVERAGE NUMBER AT EACH LOCATION	VENDOR NAME	% OF TOTAL UNITS REPORTED	FINANCIAL ARRANGEMENT
3330 TYPE DISKS	10	IBM MEMOREX STC CDC ITEL	46% 31 11 10 2	37% PURCHASE 6 RENT 57 LEASE
3350 TYPE DISKS	6	IBM STC	80% 20	14% PURCHASE 14 RENT 72 LEASE

EXHIBIT III-6

PERIPHERALS INSTALLED AT 370/158 SITES

PERIPHERAL TYPE	AVERAGE NUMBER AT EACH LOCATION	VENDOR NAME	% OF TOTAL UNITS REPORTED*	FINANCIAL ARRANGEMENT
ADD-ON MEMORY	2.3 MEGS. 1.3 UNITS	ITEL IBM INTERSIL EM&M NAT'L SEMI AMS MEMOREX STC CAMBRIDGE INTEL	25% 19 14 10 10 6 4 4 4 4	36% PURCHASE 3 RENT 61 LEASE
3330 TYPE DISKS	12	IBM CDC MEMOREX ITEL CALCOMP	77% 11 8 3 1	10% PURCHASE 41 RENT 49 LEASE
3350 TYPE DISKS	11	IBM	100%	6% PURCHASE 21 RENT 73 LEASE
NON-IMPACT PRINTERS	2	IBM XEROX HONEYWELL	78% 17 5	0% PURCHASE 6 RENT 94 LEASE

*ADD-ON MEMORY AVERAGES ARE CALCULATED USING MEGABYTES AS OPPOSED TO UNITS INSTALLED.

EXHIBIT III-7

PERIPHERALS INSTALLED AT 370/168 SITES

PERIPHERAL TYPE	AVERAGE NUMBER AT EACH LOCATION	VENDOR NAME	% OF TOTAL UNITS REPORTED*	FINANCIAL ARRANGEMENT
ADD-ON MEMORY	6.1 MEGS 2.2 UNITS	STC IBM ITEL CDC NAT'L SEMI MEMOREX CAMBRIDGE	25% 20 16 16 9 8 6	25% PURCHASE 0 RENT 75 LEASE
3330 TYPE DISKS	19	IBM TELEX STC CDC ITEL CALCOMP	54% 21 10 8 4 3	34% PURCHASE 18 RENT 48 LEASE
3350 TYPE DISKS	18	IBM STC TELEX	92% 6 2	12% PURCHASE 12 RENT 76 LEASE
NON-IMPACT PRINTERS	2.2	IBM XEROX HONEYWELL	62% 35 3	0% PURCHASE 68 RENT 32 LEASE

*ADD-ON MEMORY AVERAGES ARE CALCULATED USING MEGABYTES AS OPPOSED TO UNITS INSTALLED.

EXHIBIT III-8

COMBINED TOTAL OF VENDOR PERIPHERAL

UNITS INSTALLED AT RESPONDENTS' 370/XXX SITES

PERIPHERAL TYPE	VENDOR NAME	% OF TOTAL UNITS REPORTED*
ADD-ON MEMORY	ITEL	20 %
	IBM	18
	STC	17
	NAT'L SEMI	10
	CDC	10
	INTERSIL	6
	MEMOREX	6
	CAMBRIDGE MEMORY	5
	EM&M	4
	AMS	2
	INTEL	2
3330 TYPE DISKS	IBM	66 %
	CDC	10
	MEMOREX	7.5
	TELEX	7.5
	STC	4
	ITEL	3
	CALCOMP	2
3350 TYPE DISKS	IBM	95 %
	STC	4
	TELEX	1
NON-IMPACT PRINTERS	IBM	65 %
	XEROX	31
	HONEYWELL	4

*ADD-ON MEMORY AVERAGES ARE CALCULATED USING MEGABYTES AS APPOSED TO UNITS INSTALLED.

- None of the 21 148 installations interviewed reported having any add-on memory units installed. This seemed unusual at first but may not be when it is considered that the 148 sites are smaller companies with less likelihood of requiring more add-on memory to handle large data base applications.

- Itel's add-on memory at the 158 sites (25%) was the highest of any vendor reported.

- At the 168 sites, Itel and CDC ranked third with 16% of all sales. (STC was first with 25% of all sales and IBM was second with 20%.)

• 3330 Type Disks:

  - Itel's sales of 3330 type disks were low in all three groups interviewed: 2% of 148s, 3% of 158s, and 4% of 168s.

  - IBM is the dominant vendor in this market with more than half of all sales.

  - The only other vendors who have a significant share of this market are Memorex with 31% of 148 users and Telex with 21% of 158 users.

  - STC has achieved 10-11% sales penetration in the 148 and 168 groups and nothing in the 158 group.

• 3350 Type Disks:

  - IBM was also the dominate vendor of 3350 type disks with 80% of 148 sales, 100% of 158 and 92% of 168 sales.

  - None of the companies interviewed had Itel plug compatible equipment.

- The only other vendor who has achieved sales of any significance is STC with 20% of the 148s and 6% of 168 sales.

- Non-Impact Printers:

  - Although one 148 user reported having a Xerox non-impact printer installed, it was not entered on Exhibit III-5 because of the problem of trying to calculate averages.

  - Of the 158 and 168 sites, IBM is the dominate vendor with over 50% of all sales.

  - Xerox has done well (35% of units installed) in selling to the 168 group.

  - Although small, Honeywell has achieved some penetration in sales to the 158 and 168 group.

  - None of the companies interviewed had an Itel non-impact printer installed.

- Exhibit III-8 shows the combined total of peripheral sales at 370/XXX sites of the companies interviewed.

  - The greatest market penetration for Itel's peripheral product line has been with add-on memory with 20% of the total number reported, and IBM's 18% placed second.

  - Itel was sixth out of 7 in 3330 type disks with 3% of installations from the interviewed sample.

  - As stated previously, there were no Itel 3350 type disks or non-impact printers reported at any of the installations interviewed.

F. MAINTENANCE VENDORS AND USER RATINGS ON SERVICE AT 370/XXX SITES

- Exhibit III-9 shows the vendors who perform mainframe and peripheral maintenance and the user ratings of the quality of their service. The ratings were based on a scale of 1-5; 1 being high and 5 low.

- IBM performed the maintenance at all the CPU sites reporting and received an overall rating of 1.7 for service.

- The service rating for add-on memory from the two prominant vendors, Itel and IBM, were equal. Both received ratings of 1.8.

- Itel's service rating on disk drives received a much lower rating (2.4) than received for add-on memory. The lower rating is due to several users reporting problems with Itel 3330 type disk drives.

- Some of their comments:

  - "My maintenance with disk drives from Itel has been difficult. I imagine it's due to old technology."

  - "Itel's disk drives don't operate like the 3330s of IBM. We've had big problems."

  - "We had memory and disk drives made by Itel and serviced by STC. We didn't like the disk drives."

  - "We've had experience with the 7330 disk drives and had problems with reliability compared to the 3330s. Diagnostics from IBM were 20 times better than Itel's."

  - "Bought Itel 3330s - bad engineering and service support."

EXHIBIT III-9

MAINTENANCE VENDORS AND QUALITY OF SERVICE

RATINGS AT 370/XXX SITES

PRODUCT	MAINTENANCE VENDOR	NUMBER OF RESPONSES	AVERAGE SERVICE RATING
CPU	IBM	89	1.7
ADD-ON MEMORY	IBM	15	1.8
	ITEL	6	1.8
	MEMOREX	2	2.0
	CDC	2	2.0
	EM&M	2	1.5
	INTEL	2	2.0
	STC	2	2.0
	TELEX	1	3.0
	CALCOMP	1	2.0
	CAMBRIDGE	1	1.0
DISK DRIVES	IBM	69	1.9
	MEMOREX	6	2.3
	ITEL	5	2.4
	STC	5	2.2
	CDC	4	1.8
	CALCOMP	2	2.0
	TELEX	1	4.0
NON-IMPACT PRINTERS	IBM	17	2.2
	XEROX	8	2.6
	HONEYWELL	2	2.0

SCALE: 1 = HIGH, 5 = LOW

- "Itel bid on our peripheral equipment and then didn't follow-up. Thank goodness! I hear their 3330 type disks are real problems."

G. ACCEPTANCE OF PCM AND PCP VENDORS IN THE MARKETPLACE

- Respondents attitude toward installing a plug compatible mainframe varied depending on the user site interviewed as shown in Exhibit III-10.

- Only 30% of the User and EDP Executives at 148 sites stated they would consider installing anything other than an IBM mainframe.

  - This reluctance was attributed to a fear of being out of IBM's protective umbrella and not wanting to be "pioneers."

  - A typical comment from one respondent:

    - "With mainframes price is not that much of a factor. Most important thing is stability or field upgradability. Essentially, we will never be non-IBM with mainframes. It just won't happen."

- Acceptance of PCM vendors of the 158 and 168 users was much higher particularly with the User Executives. They appeared to be much more willing to consider non-IBM equipment, especially if it offered financial advantages, whereas the EDP Executive was more concerned about the impact of conversion, maintenance, software compatibility, and reliability of a non-IBM vendor.

- Plug compatible peripheral products are more accepted in the marketplace than plug compatible mainframes as shown in Exhibit III-11.

- The 148 sites reported a much higher level of acceptance for PCPs than for PCMs.

EXHIBIT III-10

RESPONDENTS' ATTITUDE TOWARDS

INSTALLING PLUG COMPATIBLE MAINFRAMES

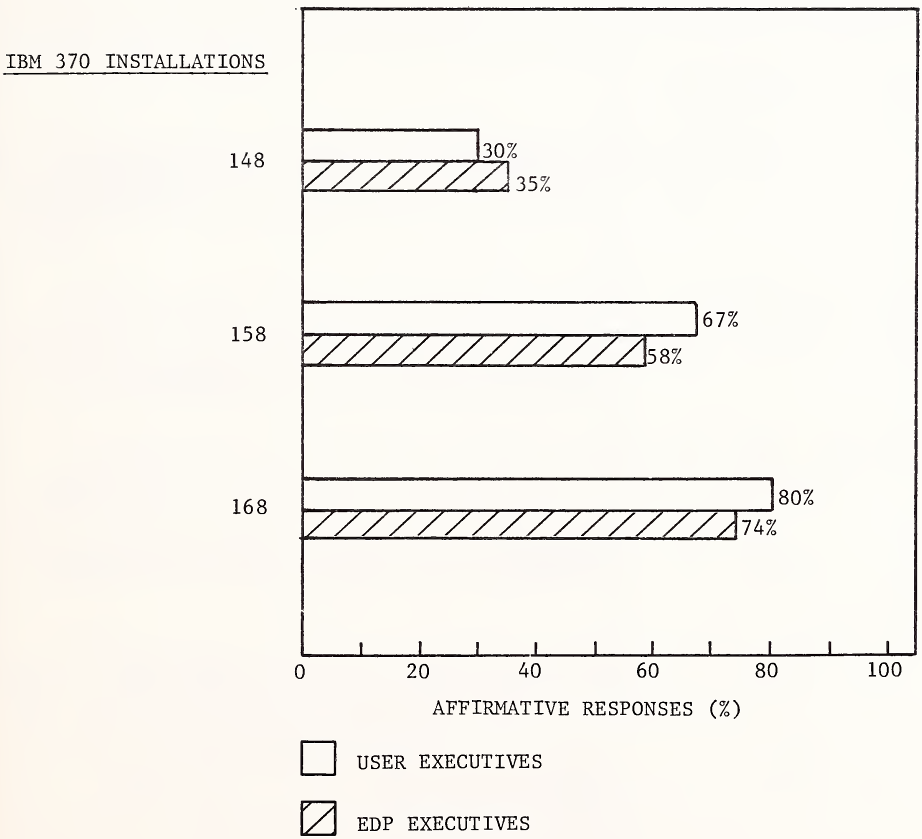
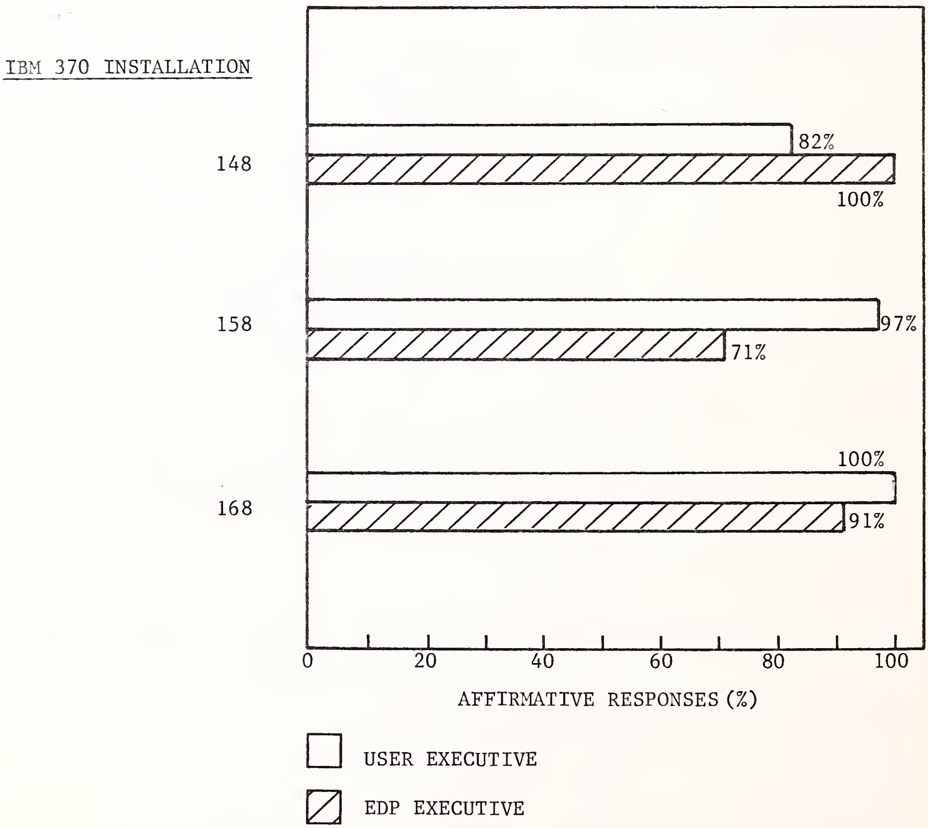


EXHIBIT III-11

RESPONDENTS'ATTITUDE TOWARDS INSTALLING

PLUG COMPATIBLE PERIPHERALS



- The User Executives at the 158 and 168 installations are more open to the possibility of installing PCP products than are their EDP Executives.

- It was generally felt that before an IBM installation would change over to a PCM vendor, the PCM vendor would have to have a fairly good trace record (4-6 years) of good reliability and service and not be wholly dependent on IBM software.

- Many of the respondents also stated they would not consider a PCM vendor at the present time due to contractual committments on their present equipment.

H. RESPONDENTS' ATTITUDE TOWARDS INSTALLING ITEL PCMs AND PCPs

- When asked specifically if the respondent would consider installing an Itel A/S system or 3330/3350 type disks, the responses changed considerably. (See Exhibit III-12.)

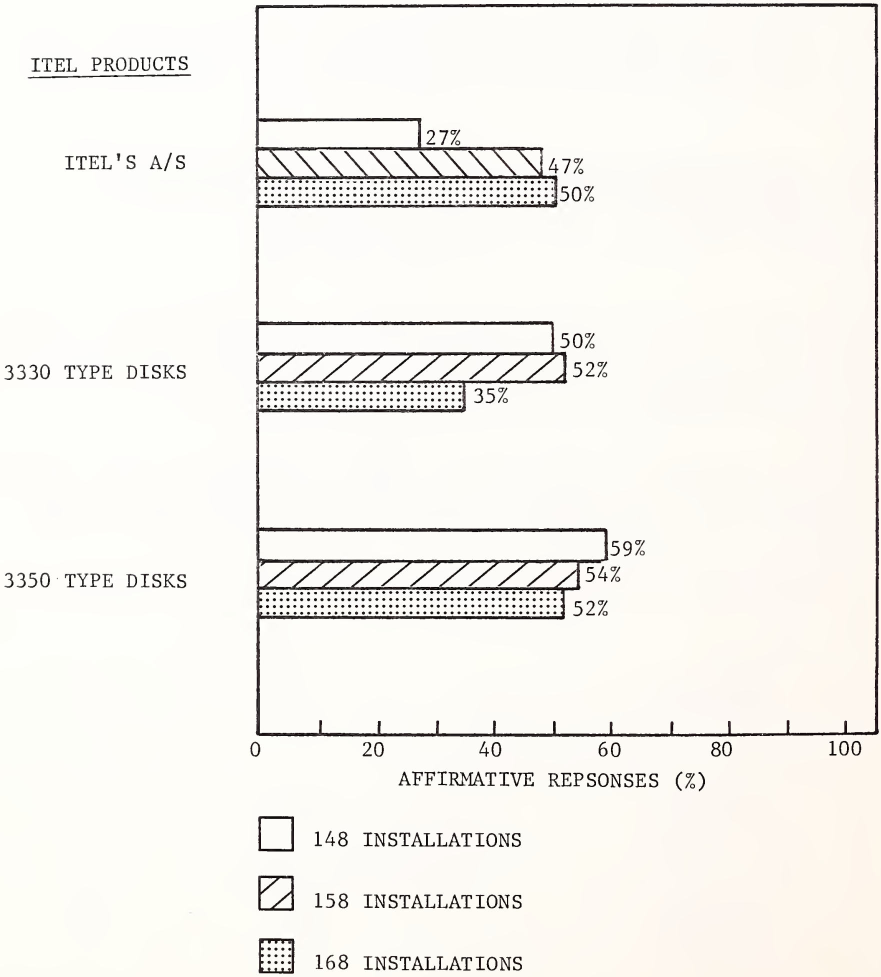
- A comparison of the attitudes towards installing any plug compatible mainframe or disk drives with those offered by Itel showed the following:

	Any PC	Itel's
148		
- Mainframe	33%	27%
- Disk Drives	91	55
158		
- Mainframe	63%	47%
- Disk Drives	84	53
168		
- Mainframe	77%	50%
- Disk Drives	96	44

EXHIBIT III-12

RESPONDENTS'ATTITUDE TOWARDS

CONSIDERING ITEL PRODUCTS IN FUTURE



INPU

- Itel's product line received a lower response rate for both mainframes and disk drives in all user sites interviewed. Disk drives consistently received a lower rate of acceptance than mainframes. The lower rate of acceptance for Itel's mainframes can partially be attributed to several respondents not knowing of the "Advanced System."

I. USER AWARENESS OF PLUG COMPATIBLE MAINFRAME PRODUCTS

- Exhibit III-13 shows the level of awareness of PCM vendors of all 150 respondents interviewed.

- What is interesting about the statistics is that User Executives are more aware of vendors than the EDP Executives.

- Both the User and EDP Executives at the 168 sites were more aware of PCM vendors than within the 148 or 158 sites.

- Amdahl received the highest rating of any of the PCM vendors. The only group who were more aware of Itel's mainframes over Amdahl were the 148 EDP Executives.

- Itel's overall level of awareness with User Executives was 50%. With EDP Executives it dropped to 46%.

- Very few of the respondents could cite comparable PCM model numbers for IBM equipment. They generally knew the vendor's name but rarely knew of the details of their product line.

- Some typical comments:

  - "I know they are out there but haven't bothered to research them."

EXHIBIT III-13

RESPONDENTS' AWARENESS OF PLUG COMPATIBLE

MAINFRAME PRODUCTS

IBM 370 INSTALLATION	NUMBER OF RESPONDENTS WHO KNEW OF A RCM VENDOR		PCM VENDOR CITED	% WHO WERE AWARE (TOTAL)
	KNEW	DID NOT KNOW		
148				
- USER	8	3	AMDAHL	73%
			ITEL	36
			MAGNESON	9
- EDP	13	8	ITEL	48
			AMDAHL	43
			CDC	19
158				
- USER	30	8	AMDAHL	71%
			ITEL	47
			CDC	21
			MAGNESON	11
- EDP	29	17	AMDAHL	54
			ITEL	43
			CDC	7
			MAGNESON	4
168				
- USER	10	1	AMDAHL	91%
			ITEL	73
			CDC	36
			MAGNESON	9
- EDP	22	1	AMDAHL	91
			ITEL	48
			CDC	32
			MAGNESON	4
TOTAL LEVEL OF AWARENESS				
- USER	48	12	AMDAHL	75%
			ITEL	50
			CDC	20
			MAGNESON	10
- EDP	64	26	AMDAHL	61
			ITEL	46
			CDC	16
			MAGNESON	6

- "I know Amdahl's got it for the larger 3032s and 3033s, but I don't know about Itel."

- "Amdahl is not truly plug compatible for IBM equipment like Itel is."

- Magneson received a fair number of responses - probably due to their M80 being announced during mid-study.

- One of the problems that occurred when this question was asked was that several respondents confused Itel with Intel.

J. IMPORTANT FACTORS WHEN SELECTING A PCM VENDOR

- The ratings of the respondents as to the importance of certain factors when selecting a PCM vendor are listed in Exhibit III-14.

- The three most important factors cited were:

  - Product reliability.

  - Maintenance capability.

  - Software support.

- Some of the user comments on the importance of reliability:

  - "If you've got reliability the rest follows."

  - "I am willing to pay more if I can get reliability."

EXHIBIT III-14

RATINGS OF IMPORTANT FACTORS WHEN SELECTING

A PCM VENDOR

FACTOR	148		158		168		AVERAGE OF ALL RATINGS
	USER	EDP	USER	EDP	USER	EDP	
PRODUCT RELIABILITY	1.1	1.3	1.3	1.2	1.4	1.2	1.3
MAINTENANCE CAPABILITY	1.1	1.7	1.3	1.3	1.4	1.3	1.3
SOFTWARE SUPPORT	1.8	1.8	1.8	1.4	1.7	1.4	1.6
PRICE/ PERFORMANCE	1.6	2.1	1.9	1.9	2.3	1.9	2.0
FIELD UPGRADABILITY	2.0	2.0	2.2	1.9	2.4	1.9	2.0
VENDOR IMAGE/ REPUTATION	2.8	2.4	2.5	2.0	2.1	2.3	2.3
VENDOR SALESMAN CONTACTS	3.0	2.6	3.4	2.8	3.5	2.9	3.0
SINGLE VENDOR FOR ALL PURCHASES	3.4	3.3	3.4	2.5	3.7	3.0	3.1
FINANCIAL ARRANGEMENTS	3.1	2.5	3.4	3.0	3.8	3.1	3.1

SCALE: 1 = HIGH, 5 = LOW

- "With teleprocessing systems this gets really important. If the terminal goes down, people aren't working. Cost of lost man hours quickly gets into thousands of dollars per incident."

- "Reliability is the most important factor due to our problem of getting service in remote areas."

- Other important factors cited in selecting a PCM vendor were:

  - Other successful installations.

  - Education and training provided by the vendor.

- The least important factors concerning the respondents were:

  - Single vendor for all purchases.

  - Financial arrangements.

  - Vendor salesman contacts.

K. MAINFRAME SELECTION PROCESS

1. HOW VENDORS ARE SELECTED

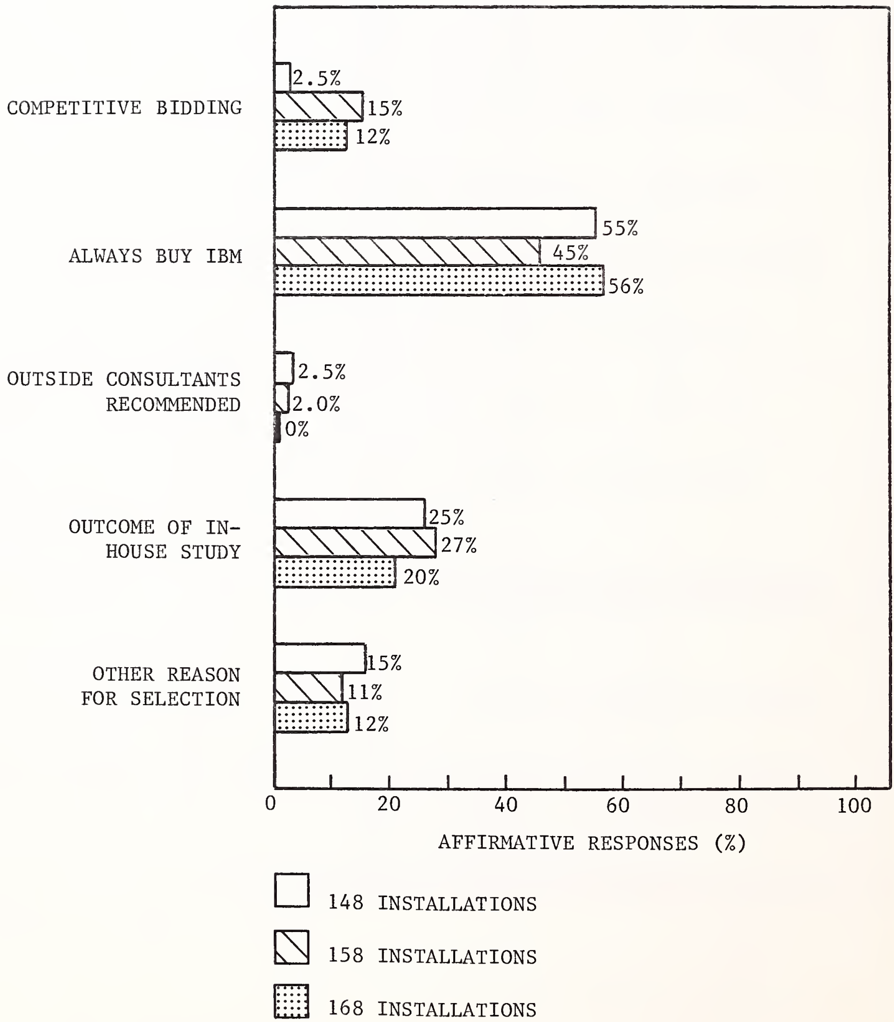
- Respondents were asked to indicate how they selected their mainframe vendor and these results appear on Exhibit III-15.

- The most frequently cited reason: "We always buy IBM."

EXHIBIT III-15

HOW A MAINFRAME VENDOR

WAS SELECTED



- When asked why they only considered IBM, the majority stated they feared that a PCM vendor may be out of business in 4-5 years or cited the importance of IBM's maintenance.

- Less than 25% of the companies interviewed performed any in-house studies prior to selection. (This is surprising considering the financial commitment.)

- Very few companies go out for competitive bids when selecting a mainframe.

- The least popular method of selection was to use an outside consultant.

- The other means cited for selection of a vendor revolved around personal contacts, recommendations and contacts with professional organizations, and established user groups.

2. DECISION MAKERS

- Exhibit III-16 lists the involvement of corporate members in the final decision of mainframe vendor selection.

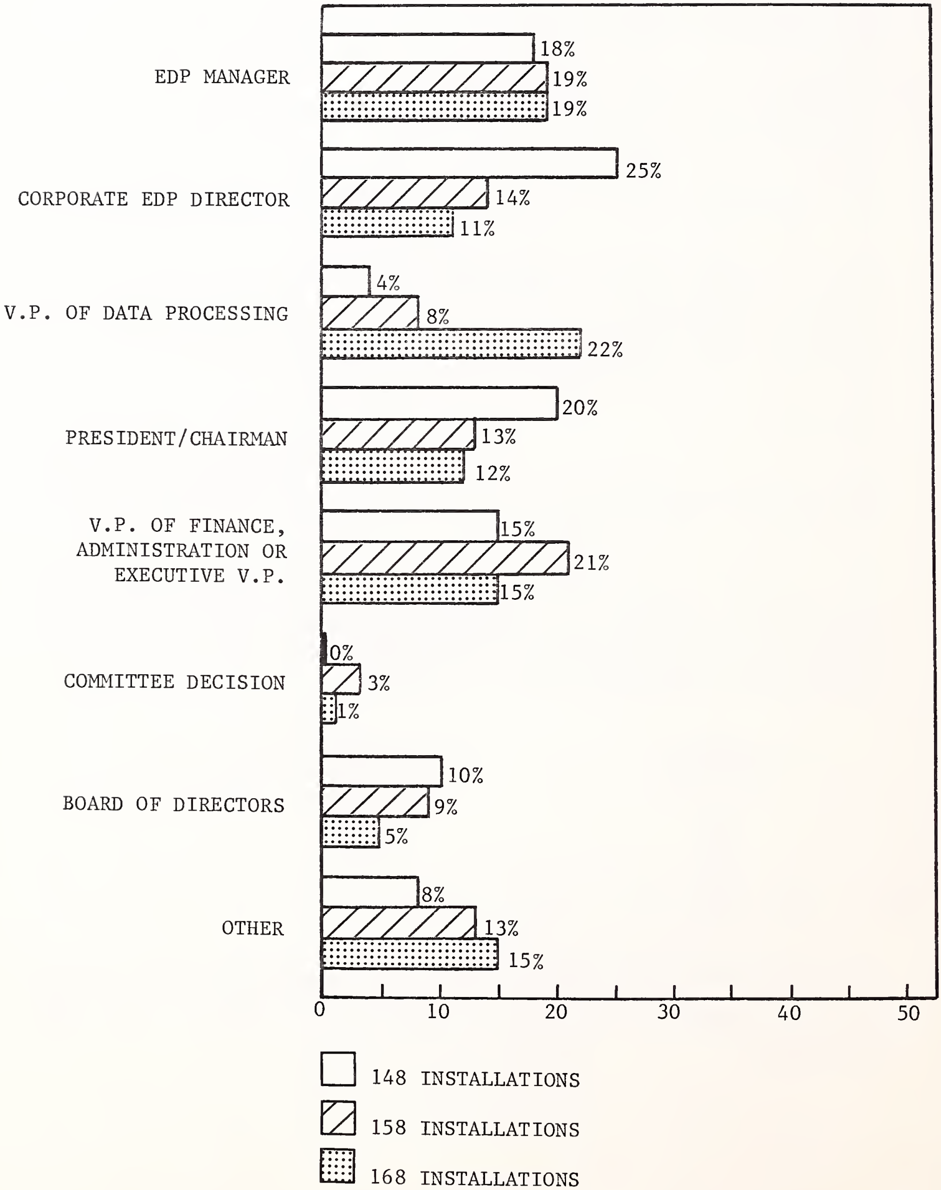
- The key EDP executive (EDP Manager, Corporate EDP Director or Vice President of Data Processing) received the highest percentage of mentions as being involved in the final decision on selection:

370 Installation	% EDP Executives Involved
148	47%
158	41%
168	52%

- The President or Chairman of the company was an important factor in making the final decision at 148 sites but became less involved at the large installations.

EXHIBIT III-16

CORPORATE MEMBERS INVOLVED IN FINAL DECISION ON MAINFRAME SELECTION



- The Vice-President of Finance, Administration or an Executive Vice President received a higher rating of importance at the 158 sites (21%) than reported by the 148 and 168 users (15%).

- Decisions made by committees were the least frequently mentioned source.

- Boards of Directors were involved about 10% of the time at 148 and 158 sites and only 5% of the time at 168 installations.

3. INFORMATION SOURCES USED WHEN SELECTING A VENDOR

- As shown in Exhibit III-17, the most relied upon source for vendor product information for both User Executives and EDP Executives are industry reports (Auerbach, Datapro).

- The second highest source of information were magazine and newspaper articles on other installations and user satisfaction levels.

- Personal contacts were rated third of all factors considered, although INPUT believes this may be the most critical factor of all. Too many of the companies interviewed placed emphasis on an established user base and "reputation in the field" as important aspects when considering a non-IBM vendor for any product.

- Advertisements and trade shows received the lowest ratings of all as the primary source of vendor information.

L. PRICE REDUCTION REQUIRED WHEN PURCHASING A PCM OR PCP

- Exhibit III-18 shows how much of a price reduction users would expect to receive when buying PCM or PCP products.

EXHIBIT III-17

SOURCES OF INFORMATION USED
TO EVALUATE PCM VENDORS

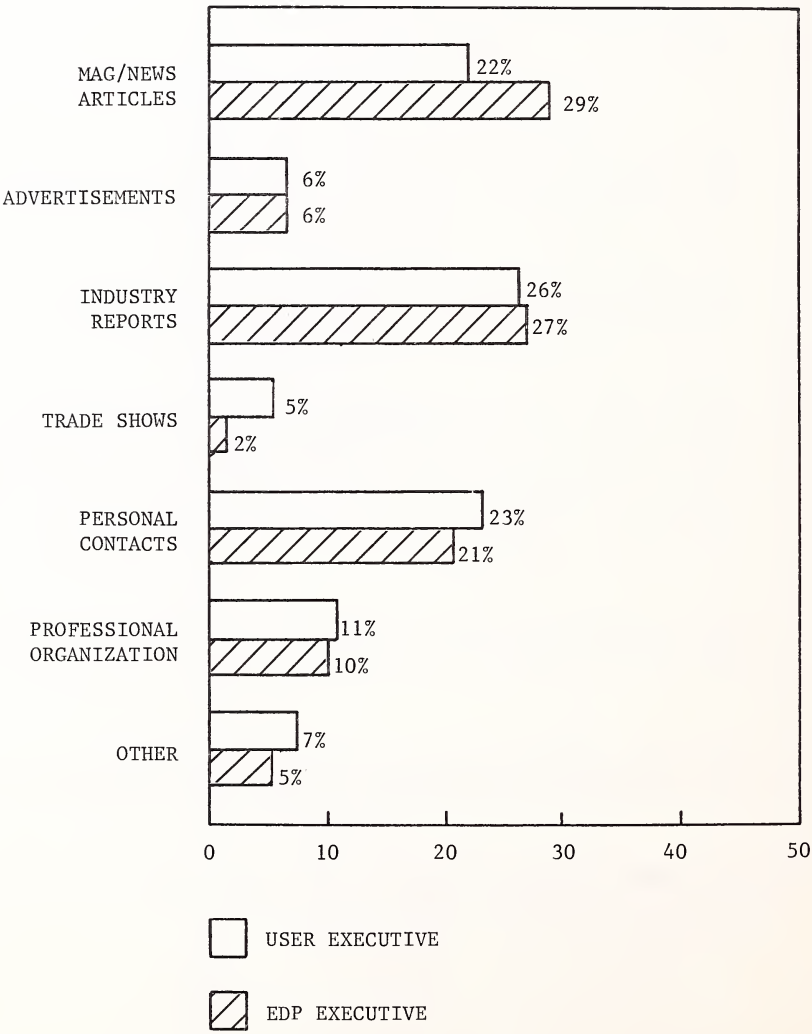


EXHIBIT III-18

PRICE REDUCTION REQUIRED FOR PURCHASING

OR LEASING AN IBM PCM AND PCP

IBM 370 INSTALLATIONS	PRICE REDUCTION FOR PLUG COMPATIBLE MAINFRAMES (%)						PRICE REDUCTION FOR PLUG COMPATIBLE PERIPHERALS (%)					
	<10	10-20	20-30	30-40	40-50	>50	<10	10-20	20-30	30-40	40-50	>50
148	14%	50%	22%	0%	14%	0%	4%	53%	30%	9%	4%	0%
158	8%	29%	45%	11%	3%	4%	9%	33%	42%	11%	2%	3%
168	10%	65%	20%	0%	5%	0%	17%	54%	21%	4%	4%	0%

- The majority of respondents from the 148 and 168 groups stated that they would consider products if they were 10-20% less expensive than those offered by IBM for both PCMs and PCPs.

- The 158 group required a higher discount, 20-30%, for both categories.

- Most respondents stated price was not a critical factor. What was most important in buying any product was reliability, field upgradability (for mainframes), and good maintenance.

M. ATTITUDE TOWARDS BUYING FOREIGN PCM PRODUCTS

- The results of the respondents' attitudes towards purchasing foreign manufactured mainframe products is presented in Exhibit III-19.

- Thirty-three percent of all respondents stated that it would not make any difference whether the mainframe was manufactured overseas or by an American firm.

- Fifty-three percent stated they would not buy a foreign PCM for the following reasons:

  - Anticipation of poor service and software support (25%).

  - Would never consider under any circumstances (20%).

  - Wanted to support American technology and economy (8%).

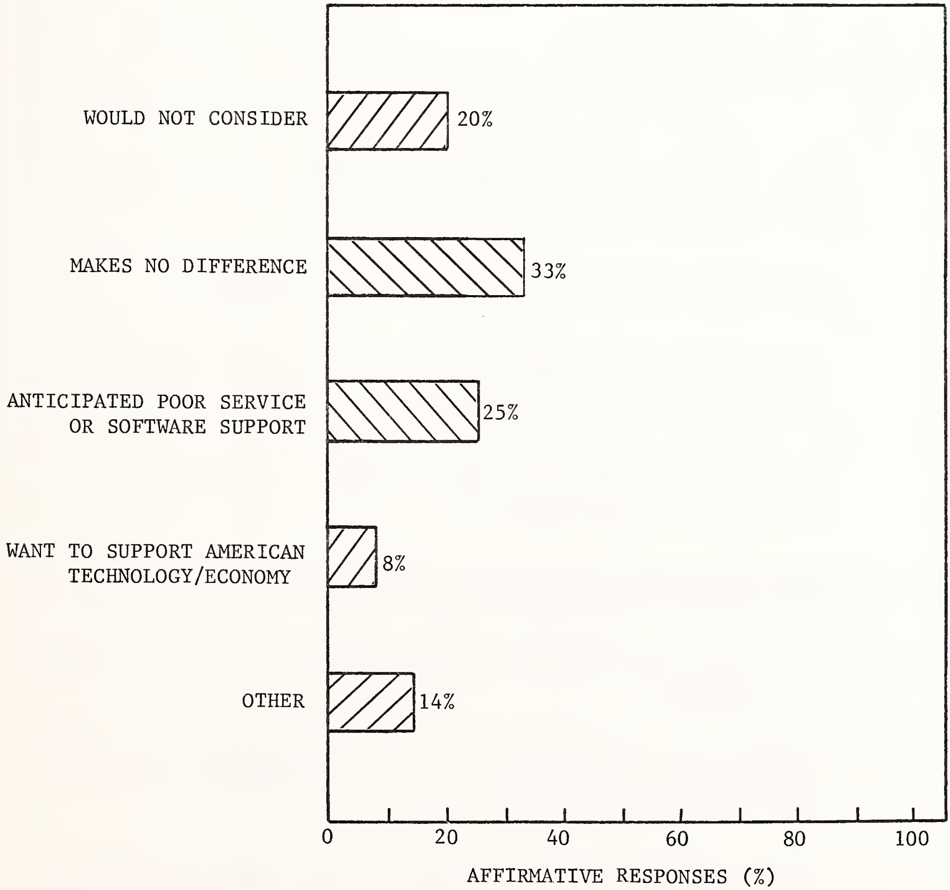
- Typical responses of the 14% who made other comments were:

  - "I don't know what is available."

EXHIBIT III-19

ATTITUDE TOWARD FOREIGN MANUFACTURED

MAINFRAME PRODUCTS



- "Corporate policy to keep all equipment IBM when possible."

- "If it had a market for future resale at a reasonable price."

- "I would probably look much harder at a foreign company, because I'm very concerned with financial stability and many foreign companies' financial data is inaccurate."

N. ITEL SALES CALLS ACTIVITY

- Itel's sales call activity at IBM installations was about 44% when responses for all three user classes are considered (see Exhibit III-20).

  - Sales calls varied from about 30% for 168s to 50% for 148s.

  - Almost the reverse pattern was found for Amdahl sales calls with higher concentration of calls on 168s than on 148s.

  - Total PCM sales calls were high with 67% of the respondents being contacted by a PCM salesperson.

- In relation to frequency of sales calls, respondents were asked to rate the professionalism of the sales calls for PCM and PCP. Only 48 of the 150 respondents would rank Itel on sales professionalism for PCMs and less would respond for PCPs (43).

  - With an average rating being 3, Itel's overall average was 2.3 for PCMs and 2.7 for PCPs (1 highest, 5 lowest).

  - Although there was some variability for the three classes of IBM installations, it was not significantly different among them.

EXHIBIT III-20

PCM SALES CALLS ON 370/XXX

USER AND EDP EXECUTIVES

IBM INSTAL-LATION	NUMBER OF RESPONSES	PERCENT CON-TACTED	PCM VENDOR NAME				
			ITEL	AMDAHL	MAGNESON	CDC	OTHER
148							
- USER	11	64%	45%	22%	0%	11%	22%
- EDP	21	43	50	8	0	34	8
158							
- USER	38	79%	48%	40%	2%	6%	4%
- EDP	46	67	44	44	2	5	5
168							
- USER	11	55%	22%	67%	0%	11%	0%
- EDP	23	74	32	46	7	11	4
TOTAL OF ALL RESPONSES	150	67%	44%	38%	2%	12%	4%

OTHER = PCM VENDOR CONTACT MADE BUT RESPONDENT COULD NOT REMEMBER NAME OR RESPONDENT CITED A NON-PCM VENDOR.

- EDP and User Executives who did comment about their ratings were generally negative about the characteristics of the Itel sales calls. Some typical comments were:

  - "Had to request information. Wasn't presented to me. Had to specifically request each piece of information."

  - "The Itel mainframe salesman was very professional."

  - "Compared to IBM, the presentation was not as good. Information was not readily available from the salesman."

  - "Not as well prepared as Amdahl."

  - "The salesman tended to desell IBM rather than sell Itel."

  - "My opinion is that their salesmen are smooth and polished and the maintenance people are not."

  - "Never followed up on sales call."

  - "Not enough information. He didn't have machine specs."

  - "The Itel salesman was fairly good."

  - "Have Itel 3300 disk drives installed - feel that salesman misled us to some degree and failed to give us some information."

  - "Itel is sloppy. Every Itel salesman I've met seems to give me the fast shuffle."

  - "They are very knowledgeable, but their professionalism lacks something."

- "Itel reminds me of a used car salesman in the computer market."

- There is a consistent theme in these comments about the lack of preparation by sales personnel. They did not appear to be adequately prepared with the information potential buyers generally request. Also, they tended to lack the information applicable to the specific type of company they were contacting.

O. ITEL'S IMAGE IN THE MARKETPLACE

- To determine the characteristics of Itel's image in the marketplace, respondents were asked to rate the company on a number of different factors. The results of this rating is shown in Exhibit III-21.

    - Itel does not rate very high on any of the factors with ratings ranging from slightly above average to below average.

    - Itel rates highest in regard to financial arrangements and lowest as a single source vendor.

    - User executives consistently rated Itel higher than EDP executives.

    - PCM products were rated higher (2.5) than PCP products (2.8).

    - Itel's maintenance capability, an important selling point, was rated next to last with a score of 2.9.

- Some of the comments respondents made regarding Itel's image:

    - "My opinion is that they are number I in financial arrangements, if you're interested."

EXHIBIT III-21

ITEL RATINGS BY

USER AND EDP EXECUTIVES INTERVIEWED

FACTOR	148		158		168		WEIGHTED AVERAGE OF ALL RATINGS
	USER	EDP	USER	EDP	USER	EDP	
FINANCIAL ARRANGEMENTS	2.1	2.5	2.0	2.0	2.6	2.3	2.2
PCM PRODUCTS	2.4	2.3	2.5	2.4	3.2	2.8	2.5
SALES KNOWLEDGE/ PROFESSIONALISM	2.4	2.1	2.6	2.4	3.3	2.7	2.5
COMPANY IMAGE	2.2	2.3	3.3	2.2	3.0	3.0	2.8
FIELD UPGRADABILITY	3.0	2.2	2.5	2.4	3.5	3.5	2.7
PERIPHERAL PRODUCTS	2.3	2.3	2.9	2.8	3.8	3.5	2.8
MAINTENANCE CAPABILITY	3.4	2.7	2.9	2.5	3.3	3.2	2.9
SINGLE VENDOR SOURCE	3.9	3.3	4.0	3.6	3.8	3.5	3.7

SCALE: 1 = HIGH, 5 = LOW

- "I feel that Itel's image is more of one as a financial/leasing company and not one of a computer manufacturer."

- "Itel is basically a brokerage company and not a viable computer manufacturer. Itel has very little invested (they buy from other manufacturers) and therefore could exit the market easily and leave many people in a bind."

- "Itel is a dynamic growth organization and has been very successful."

- "I have an image of Itel as an excellent marketing and good financial organization."

- "I'm impressed with them. I like the way they have undertaken their business. No flash in the pan outfit. They are vigorous, aggressive and do a lot of market research."

- "If your client is Itel, tell them that I am not happy with the way they present their packages. They like to tie in leases with some of their equipment and I want the freedom to make my own financing decisions. It's good for Itel but not good for me. Financing and hardware should be separate." (Respondent was a Vice President of a $1 billion publishing firm.)

- "I have the impression Itel always comes out third. There's IBM, a sharp competitor, and then Itel."

- "Itel's name isn't prominent as being a PCM manufacturer. I don't have any feelings for their products or reputation."

- "We have had bad experience with them in leasing. Have tried to set-up third party leasing with them for IBM products and its been time consuming and embarassing."

- "Have a low opinion of Itel's PCP products through someone else's experience - lot of down time, lot of maintenance problems."

- "Their image to me is one of a leasing company, sharp money handlers whose primary interest is financial arrangements. I feel their technical knowledge and interest is secondary."

P. RESPONDENTS' MARKETING SUGGESTIONS

- Respondents' comments about marketing suggestions were very candid and revealing.

- Three consistent themes emerged from these comments:

  - Avoid negative comments about IBM and stress merits of own products as a viable alternative source.

  - De-emphasize the financial aspects of Itel and concentrate on establishing Itel as a credible hardware vendor.

  - Establish a well-informed sales force who can relate detailed information about Itel products to the specific needs of potential customers.

  - This should be complemented with a reliable maintenance capability to support sales effort and actual products after the installation.

- Typical comments from the respondents:

  - "Don't knock them (IBM) - just build up your own product."

  - "They would have to be able to prove price advantages, maintenance ability, and hardware/software equal to IBM's."

- "Lead time too long from IBM. Quick delivery is a key factor."

- "Market your own product. Don't talk down IBM or others."

- "Must prove he can provide in-depth software suport. Not be dependent on IBM."

- "Shouldn't spend their time knocking IBM, should come in on own merits."

- "I think of these guys as a leasing company, not as a manufacturer."

- "Suggest that if they are going to sell computers then sell computers. If they are going to be bankers then be bankers, but don't try to be a mainframe vendor by merely putting your name on computer equipment."

- "They should get out in the field. They say much about their products in ads, but I've never seen any salesmen."

- "They should be prepared to answer our questions about our problems, problems other users have had, and the measures they plan to use to correct problems."

- "More exposure through personal contact."

- "Improve quality of sales personnel."

- "Know more about the business your contacting - publish reliability data."

- "Sales reps aren't strong enough - don't understand their products or the business they are calling on."

- "Must "commit" to maintenance and support to be successful."
- "Better start marketing maintenance capability."
- "Must be better established in the field to support local contracts."
- "Stress product reliability, instill at the time of purchase that Itel is a quality service organization."
- "Biggest single problem is post installation field level support."
- "Service - must have established track record of good service."

Q. RESPONDENTS' AWARENESS OF ITEL ADVERTISING

- In order to determine the penetration of Itel advertising within the EDP community, respondents were queried on their recognition of Itel advertisements in both EDP and general business magazines.
- Itel's advertisement recognition was very high. Eighty-seven percent of the executives interviewed (130 out of 150) had seen Itel advertisements in either EDP or general business magazines.
- Twenty percent of this group had remembered seeing the Itel ads but could not identify the specific publication.
- The EDP executives had a much higher awareness of the advertising in EDP magazines than general business magazines.
    - Ninety percent had seen the Itel ads in an EDP magazine.
    - Only 10% remember seeing the ad in a business magazines.

- Among the EDP magazines there was clear domination by two publications with the following recognition levels:

  - Computerworld 48%

  - Datamation 41%

- The same clear domination did not exist with the general business magazines. Recognition of the four top rated publications were:

  - Business Week 34%

  - Wall Street Journal 24%

  - Time 18%

  - Fortune 12%

- Respondents' comments about the advertisement were either about the characteristics of the presentation, particularly the graphics and layout, or the message of the ads. Representative comments in both areas are:

  - "Was very presentable - they seem to catch my eye."

  - "Normally a big spread - something to catch your eye."

  - "They were nice and colorful - attracted my attention."

  - "The logo - I like it."

  - "Quite striking - eye catching."

  - "Bold, catch your attention - present product openly."

- "The name - big block Itel letters."

- "Futuristic design - very catchy."

- "Generally well-written."

- "The picture of the machine and that it's compatible."

- "Their machines look like IBMs."

- "Color ad in B&W newspaper with a guy saying: 'What a wonderful decision I made.'"

- "Ad very catchy - user saying how happy he was."

- "They use customer testimonials - they're in color and that helps and they focus on CPUs. They're good looking machines."

- "Lots of conversation about IBM compatibility - that it is easy to switch and will save money."

- "Itel making a big thing about their software."

- "Give detailed descriptions of equipment - they are modern."

- "That they're plug compatible and low price."

- "A price performance type pitch."

- "Usually not overstated claims."

R. EDP AND GENERAL MAGAZINES READ BY RESPONDENTS

1. EDP MAGAZINES

- There is very little difference in the reading habits of User and EDP Executives of EDP trade journals as shown in Exhibit III-22.

  - The two most dominant EDP magazines read by both groups are Computerworld and Datamation. Both received a combined average of 83% readership.

  - Infosystems and Computer Decisions received an almost equal number of mentions of approximately 35%.

  - Electronic News received the lowest readership rating of any of the EDP magazines.

  - Other DP magazines mentioned were Data Management, Mini/Micro Systems, and Telecommunications.

2. GENERAL MAGAZINES

- As expected, User Executives had a much higher readership level of general magazines than the EDP Executives (see Exhibit III-23).

  - The three most widely read general magazines by user Executives are Business Week (57%), Wall Street Journal (48%), and Fortune (46%).

  - The Wall Street Journal was the most widely read magazine by both EDP and User Executives.

  - Time received the highest rating of readership of the news weeklies.

EXHIBIT III-22

EDP MAGAZINES READ

BY RESPONDENTS

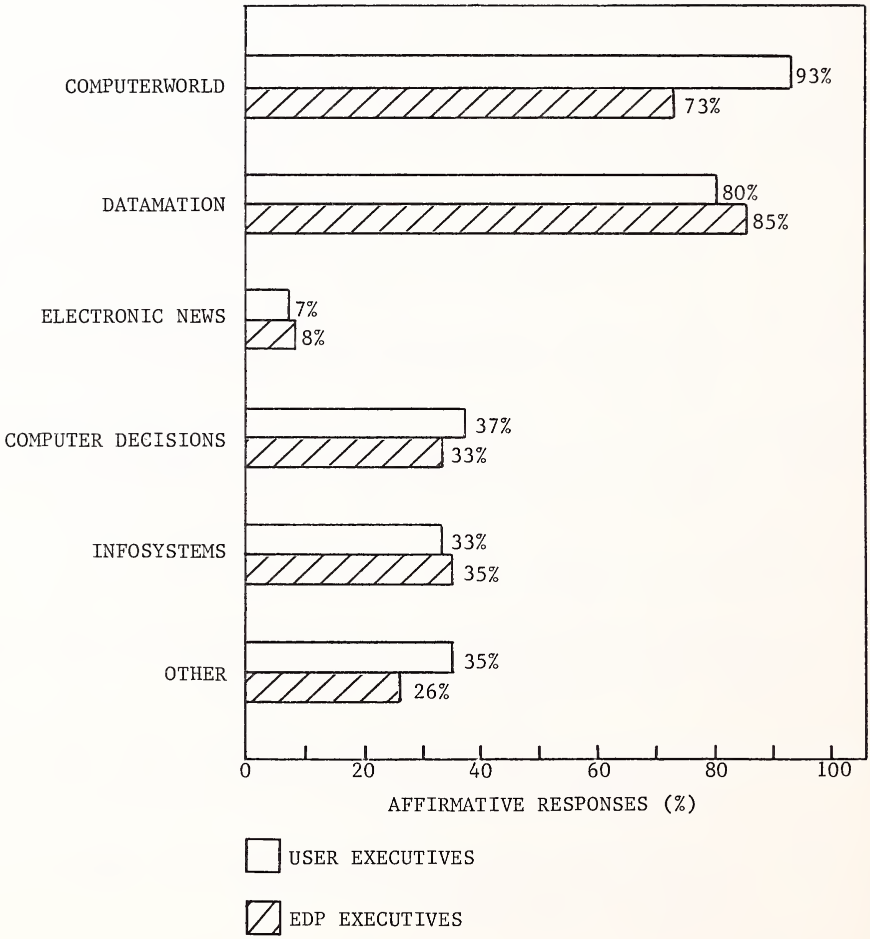
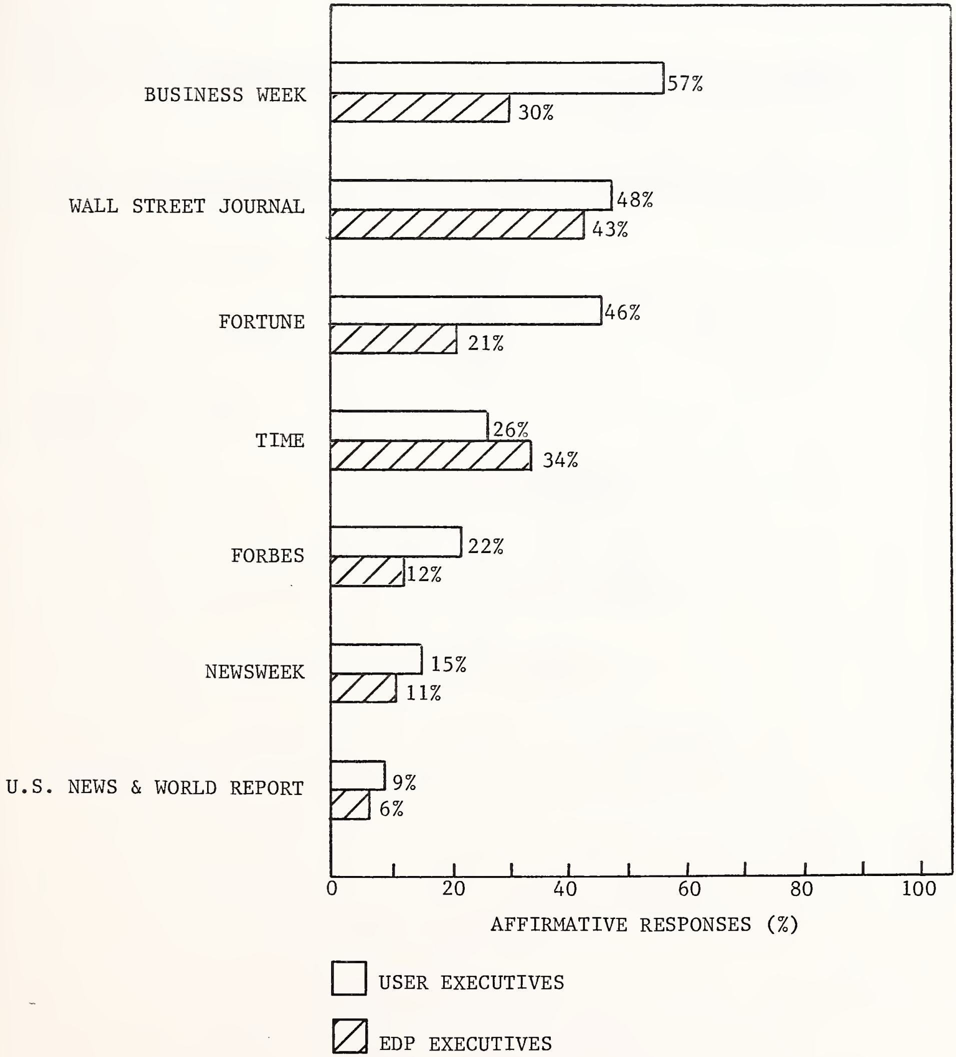


EXHIBIT III-23

GENERAL MAGAZINES READ BY RESPONDENTS



3. MAGAZINES CONSIDERED THE BEST FOR PRODUCT INFORMATION

- The ranking of the data processing and general magazines considered best for product information, industry announcements, and advertisements appears in Exhibit III-24.

- Computerworld and Datamation received the highest ranking, a 1 or 2 on a scale of 5, of the DP magazines.

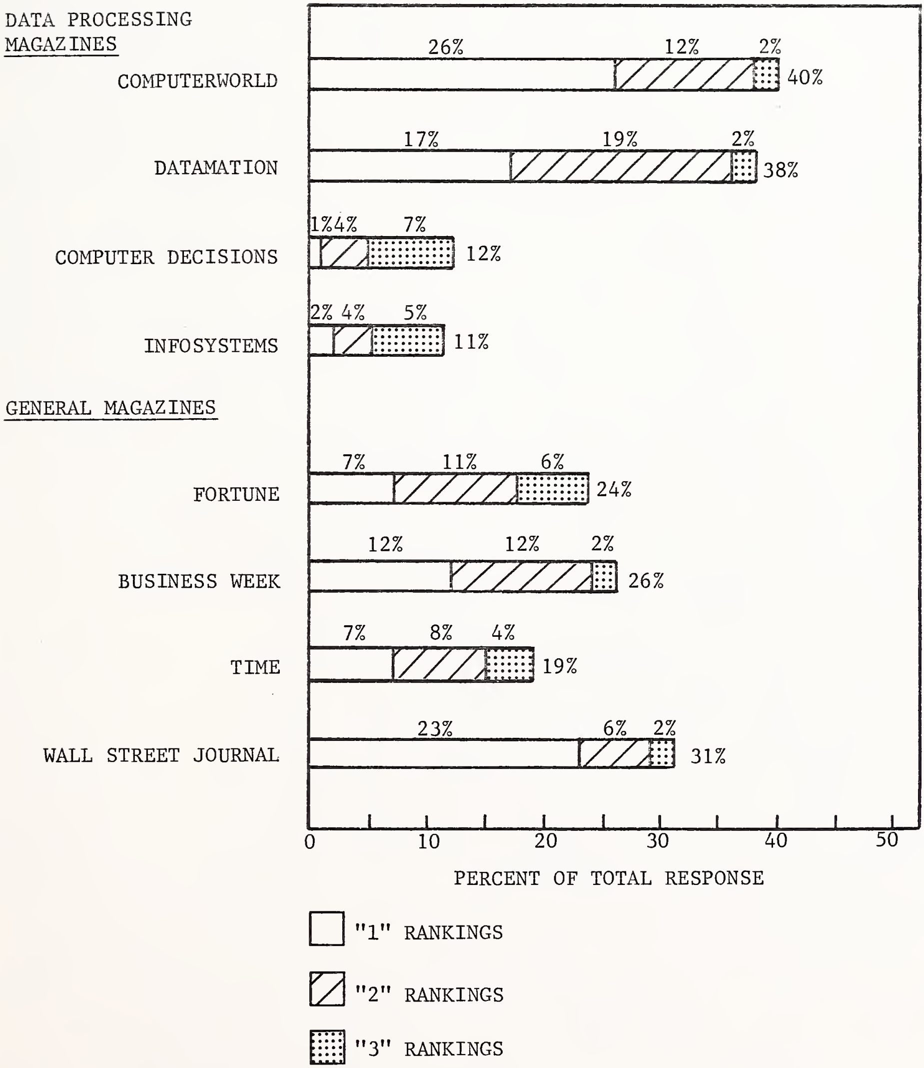
- The general magazines were ranked as follows on product information/advertisement quality:

Wall Street Journal	29%
Business Week	24%
Fortune	18%

EXHIBIT III-24

EDP AND GENERAL MAGAZINES CONSIDERED

BEST FOR PRODUCT INFORMATION



APPENDIX A: COMPANIES INTERVIEWED

APPENDIX A: COMPANIES INTERVIEWED

	EDP Executive	User Executive
Aetna Life & Casualty Corp.	X	
Allstate Insurance Co.	X	
American Bankers Trust	X	
American Express	X	
Anderson Clayton Corp.	X	X
Atlantic Richfield Corp.	X	
B. F. Goodrich Co.	X	
Baltimore City Management System	X	X
Bessemer, Lake Erie Railroad		X
Black & Decker	X	
Blue Cross/Blue Shield of Washington, D.C.	X	
Blue Cross/Blue Shield of Michigan	X	
Boston Edeson Co.	X	
Confidential	X	X
Brandis Machine & Supply Corp.		X
Confidential		X
Budd Company	X	
California Almond Growers Association	X	
Carrier Air Conditioning Corp.	X	
Chemical Bank	X	X
Chicago, Milwaukee, St. Paul, Pacifc Railroad	X	X
Citizens Insurance Co. of America	X	

	EDP Executive	User Executive
Coca Cola Corp.	X	X
Conrail	X	
Columbus Bank & Trust		X
Cutter Laboratories	X	
Dana Corp.	X	
Diebold Inc.	X	X
Dillards Department Store	X	
Dresser Industries	X	
East Texas Motor Freight		X
Emerson Electronics	X	X
Envirotech Corp.	X	X
Equibank		X
Essex International		X
Exxon Corporation	X	
Federal Reserve Bank Of San Francisco	X	X
Fidelity Bank		X
Fidelity Union Life		X
Financial Independence Corp.	X	
Firemen's Fund Insurance	X	
First Chicago Data Corp.	X	
First Federal Savings & Loan of Chicago	X	X
First National Bank of Fort Worth	X	X
First National Bank		X
Florida Federal Savings	X	
GTE Sylvania		X
Gates Rubber Co.		X
Hallmark Card Corp.	X	
Home Insurance Co.	X	X
Hunt Wesson Foods		X
Illinois Department of Law Enforcement	X	X
Illinois National Bank	X	
International Nickle		X

	EDP Executive	User Executive
International Harvestor	X	X
International Playtex Corp.	X	X
Joanna Western Mills Co.	X	
Kennecott Copper Corp.	X	
Kimberly Clark Corp.		X
Ladish Company		X
Lennox Industries	X	X
Lockheed Corp.	X	
Louisianna National Bank	X	X
Lutheran Brotherhood	X	X
Mattel Corp.	X	X
Confidential	X	X
Metropolitan Life Insurance Corp.	X	
Michigan Consolidated Gas	X	X
Mobil Oil Corporation	X	
Montana State Dept. of Public Instuction	X	X
Morris Knudsen Corp.	X	X
Morton Norwich Corp.	X	
Nash Engineering	X	
Nationwide Mutual Insurance Co.	X	
State of Nevada	X	X
Confidential	X	
North Indiana Public Service	X	
North States Power Co.	X	
Olympia Brewing Co.		X
Omnis Corporation		X
PJM Interconnection	X	
Pan Am World Airways	X	
Peoples Gas, Light & Coke Company	X	
Pittsburg National Corp.		X
Portland Federal Savings	X	X
Proctor & Gamble Corporation	X	

	EDP Executive	User Executive
Provident Life & Accident Co.	X	
Provident National Bank	X	X
Readers Digest Corporation	X	
Rohm & Haas Corp.		X
S&C Electric Company	X	
Samsonite Corp.		X
CONFIDENTIAL	X	
Sikorsky Aircraft Corp.	X	
Southern California Edison Co.		X
Southern California Gas Co.	X	X
Southwestern Life		X
State Farm Insurance Co.	X	
Thomas National Inc.	X	
Time Incorporated	X	X
Transamerica Corp.	X	
Transcon Gas Pipeline Corp.	X	
Transcon Lines	X	
Travelers Insurance Company	X	
University of California at Los Angeles Hospital	X	X
University of Colorado Medical Center	X	
Uniroyal Inc.	X	X
United California Bank		X
United Grocers		X
Utah International	X	X
Volkswagen/Porche-Audi Inc.	X	
Valley National Bank		X
Washington National Insurance Co.	X	
Whirlpool Corporation		X
Wisconsin Telephone Co.	X	
Woodward & Lathrop Corp.	X	X
Wyeth Laboratories	X	

APPENDIX B: QUESTIONNAIRES

CATALOG NO. A T E _ _ _

EDP - EXECUTIVE

1. How many computers 370/148, 370/158 or 370/168s does your company have and will have installed?

   a) Currently __________

   b) 1980 __________

   c) Do you have a 3031 or 3032 on order?

   ☐ Yes ☐ No

   If "yes", delivery date ____________________ .

2. What growth levels for major mainframe systems (units) do you foresee in 1979 vs 1978:

   a) USA: __________ %

   b) Your Industry: __________ %

   c) Your Company: __________ %

3. What do you see as deterents to the growth of large mainframe system use?

4. Please provide the following information concerning systems and peripherals installed:

Product	Quantity	Storage (Megabytes)	Vendor	Date Installed	Purchase (P) Rent (R) Lease (L)
a) 370/148			IBM		
b) 370/158			IBM		
c) 370/168			IBM		
d) Add-On Memory					
e) 3330 - Type Disk Drives		N/A			
f) 3350 - Type Disk Drives		N/A			
g) Non-Impact Printer		N/A			

5. Who performs maintenance on your system, and rate overall quality of service: (1 = outstanding, 5 = poorest)

Product	Rating
a) CPU Vendor ______________ ______________	
b) Add-On Memory Vendor ______________ ______________	
c) Disk Drives Vendor ______________ ______________	
d) Non-Impact Printer Vendor ______________ ______________	

6. Would you consider installing an IBM:

a) Plug compatible mainframe (PCM)? Yes ☐

No ☐

b) Plug compatible peripheral (PCP)? Yes ☐

No ☐

7. Are you aware of any Plug Compatible Mainframe products available for the 370 and 30XX series line? Please indicate manufacturer and model:

IBM Designation	PCM Vendor and Model Designation			
	f)	g)	h)	i)
a) 370/148				
b) 370/158				
c) 370/168				
d) 3031				
e) 3032				

8. Please rate the following factors as to their degree of importance in selecting a large plug compatible mainframe vendor (1 = high, 5 = low), and rank "1"s: (Note to interviewer: Be sure to get the most important factor in selecting a mainframe vendor)

Factor	Rate	Rank 1s	Comment
a) Price/Performance			
b) Hardware Maintenance Capability of Vendor			
c) Software Support Capability			
d) Single vendor for all system purchases (CPU & Peripherals)			
e) Vendor Image/ Viability/Reputation in Field			
f) Product Reliability			
g) Vendor Salesman Contacts			
h) Financial arrangements			
i) Field upgradability			
j) Other (describe)			

9. How did you select your large mainframe vendor?

a) ☐ Competitive bidding

b) ☐ Always buy IBM

c) ☐ Outside consulting firm recommended

d) ☐ Outcome of an in-house study

e) ☐ Other (describe)

____

____

f) ☐ Don't know

10. Who was involved in the final decision? (check all that apply)

a) ☐ EDP Manager

b) ☐ Corporate EDP Director

c) ☐ Vice President of Data Processing

d) ☐ President or Chairman

e) ☐ Vice President of Finance, Administration, or Executive Vice President

f) ☐ Committee Decision

g) ☐ Board of Directors

h) ☐ Other (describe)

____

____

i) ☐ Don't know

11. What is your attitude toward buying a foreign manufactured PCM product? (e.g., Japanese or European)

a) ☐ Would not consider under any circumstances

b) ☐ Would consider and evaluate them as if they were a U.S. product if marketed by a U.S. company

c) ☐ Makes no difference

d) ☐ Other comments

____

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____

12. What percentage price reduction do you require for purchasing or leasing IBM plug compatible mainframes or peripherals?

% Reduction	PCM	PCP
< 10%		
10 - 20%		
20 - 30%		
30 - 40%		
40 - 50%		
> 50%		

13. What sources of information do you use to locate and evaluate large system (370/148 or larger) PCM vendors?

- ☐ Magazine/Newspaper Stories
- ☐ Advertisements
- ☐ Industry Reports (Auerbach, Datapro etc.)
- ☐ Trade Shows
- ☐ Other

  ____
- ☐ None

14. A) Have you had a plug compatible mainframe (PCM) salesman call on you?

☐ yes ☐ no

B) If yes, from which company?

☐ Amdahl

☐ Itel

☐ Other (specify) ______________________________

____

NOTE: I'd like to talk in some depth about one of the vendors:

15. When have you been contacted by an Itel salesperson?

a) PCM: Date: __________ ☐ No Contact

b) PCP: Date: __________ ☐ No Contact

16. Rate his/her professionalism (1 = highest, 5 - lowest):

a) PCM __________

b) PCP __________

17. Rate Itel from your perception on the following factors:
(1 = highest, 5 = lowest)

	Rating	Rank 1s	Comments
a) Company Image			
b) PCM Products			
c) PCP Products			
d) Field Sales Knowledge and Professionalism			
e) Field Maintenance Capability			
f) Financial arrangements			
g) As a single vendor source			
h) Field upgradability			
i) Other			

18. Would you consider any of the following Itel products in the future?

Product	Yes/No	If "No", Why?
a) Itel's advanced system (CPU)	☐ Yes ☐ No	
b) Disk (3330 Type)	☐ Yes ☐ No	
c) Disk (3350 Type)	☐ Yes ☐ No	
d) Other		

19. What marketing or technical suggestions for improvement would you offer Itel?

____

____

____

____

☐ No Comment

20. Have you seen any Itel advertisements?

☐ Yes ☐ No

a) If "yes" where:

☐ EDP trade journals. Names:

____

____

☐ Business magazines. Names:

____

____

☐ Product literature mailed by Itel

☐ Product literature obtained at trade shows

b) What do you remember from the ads?

____

____

☐ Don't remember

c) If you remember their ads, how do you rate them? (1 = best, 5 = worst)

____

d) Why?

____

____

21. Which general or DP magazines do you read regularly?

DP (1,2,3)		GENERAL (1,2,3)	
a) ☐	Computerworld	g) ☐	Fortune
b) ☐	Datamation	h) ☐	Business Week
c) ☐	Electronic News	i) ☐	Time
d) ☐	Computer Decisions	j) ☐	Forbes
e) ☐	Infosystems	k) ☐	Wall Street Journal
f) ☐	Other (identify)	l) ☐	Other (identify)
	____________________		____________________
	____________________		____________________
	____________________		____________________

22. Which three General and three DP magazines do you consider best for you concerning general or product information, industry announcements, or providing useful information through advertisements?

DP (1,2,3)			GENERAL (1,2,3)		
a)	☐	Computerworld	g)	☐	Fortune
b)	☐	Datamation	h)	☐	Business Week
c)	☐	Electronic News	i)	☐	Time
d)	☐	Computer Decisions	j)	☐	Forbes
e)	☐	Infosystems	k)	☐	Wall Street Journal
f)	☐	Other (identify)	l)	☐	Other (identify)
		______________			______________
		______________			______________
		______________			______________

CATALOG NO. | A | T | U | | | |

USER - EXECUTIVE

1. How do you rate the importance of the EDP role in attaining your corporate objectives for: (1 = high, 5 = low)

   a) Revenue: __________

   b) Profit: __________

2. What competitive advantages do EDP systems provide your company?

3. What are the most important things you require from your EDP function?

4. What growth levels for major mainframe systems (units) do you foresee in 1979 vs 1978:

a) USA: __________ %

b) Your Industry: __________ %

c) Your Company: __________ %

5. What do you see as deterents to the growth of large mainframe system use?

6. Would you consider installing an IBM:

a) Plug compatible mainframe (PCM)? Yes ☐

No ☐

b) Plug compatible peripheral (PCP)? Yes ☐

No ☐

7. Are you aware of any Plug Compatible Mainframe products available for the 370 and 30XX series line? Please indicate manufacturer and model:

IBM Designation	PCM Vendor and Model Designation			
	f)	g)	h)	i)
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d) Single vendor for all system purchases (CPU & Peripherals)			
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f) Product Reliability			
g) Vendor Salesman Contacts			
h) Financial arrange- ments			
i) Field upgradability			
j) Other (describe)			

9. How did you select your large mainframe vendor?

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c) ☐ Outside consulting firm recommended

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e) ☐ Other (describe)

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f) ☐ Don't know

10. Who was involved in the final decision? (check all that apply)

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h) ☐ Other (describe)

____

____

i) ☐ Don't know

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c) ☐ Makes no difference

d) ☐ Other comments

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% Reduction	PCM	PCP
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- ☐ Magazine/Newspaper Stories
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- ☐ Trade Shows
- ☐ Other ________________
- ☐ None

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B) If yes, from which company?

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☐ Other (specify) ______________________________

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a) PCM ___________

b) PCP ___________

CATALOG NO. | A | T | U | | | |

17. Rate Itel from your perception on the following factors:
(1 = highest, 5 = lowest)

	Rating	Rank 1s	Comments
a) Company Image			
b) PCM Products			
c) PCP Products			
d) Field Sales Knowledge and Professionalism			
e) Field Maintenance Capability			
f) Financial arrangements			
g) As a single vendor source			
h) Field upgradability			
i) Other			

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c) Disk (3350 Type)	☐ Yes ☐ No	
d) Other		

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c) If you remember their ads, how do you rate them? (1 = best, 5 = worst)

____

d) Why?

____

____

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b)	☐	Datamation	h)	☐	Business Week
c)	☐	Electronic News	i)	☐	Time
d)	☐	Computer Decisions	j)	☐	Forbes
e)	☐	Infosystems	k)	☐	Wall Street Journal
f)	☐	Other (identify)	l)	☐	Other (identify)

______________________ ______________________

______________________ ______________________

______________________ ______________________

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c) ☐	Electronic News	i) ☐	Time
d) ☐	Computer Decisions	j) ☐	Forbes
e) ☐	Infosystems	k) ☐	Wall Street Journal
f) ☐	Other (identify)	l) ☐	Other (identify)
	____________________		____________________
	____________________		____________________
	____________________		____________________